



Summary of two research reports from the New Tech Network Comparative Analysis led by Brandi Hinnant-Crawford with Emily Virtue

About the Principal Investigator

Brandi Hinnant-Crawford, PhD, is an Assistant Professor of Educational Research at Western Carolina University. Dr. Hinnant-Crawford's work has been published in diverse venues such as *Urban Education*, the *Journal for Multicultural Education*, *Black Theology*, and *Interdisciplinary Journal of Problem-based Learning*. Dr. Hinnant-Crawford is author of *Improvement Science in Education: A Primer* and co-editor of *Comprehensive Multicultural Education in the 21st Century: Increasing Access in the Age of Retrenchment*.

Hinnant-Crawford's research agenda has two broad strands that are intimately connected: the first is equity, inclusion, and access, which deals with the pedagogy, policies and practices within K-12 schooling. The other strand is organizational improvement that examines the utility of improvement methodologies and the role of different stakeholders in the realization of educational improvement. The intersection of these research strands explores how improvement can lead to greater equity, inclusion, and access for those in the margins.

About this research

This report summarizes the primary findings from Phase I and Phase II of the comparative analysis, that used secondary data analysis with OLS Regression and multi-level modeling in Phase I and a concurrent triangulation mixed method design in Phase II to estimate the impact of New Tech Network (NTN) on academic and non-academic student outcomes. Phase I exam data included 9 NTN schools (53 comparison) sourced from the Texas Schools Project (Texas Education Agency). Phase II site visit and survey data were collected from nine schools (5 NTN/4 non-NTN) and 253 students (NTN = 149/Non-NTN 105).

Positive and significant performance, skills, thinking, and habits-of-mind outcomes for NTN students

New Tech students report engaging in project-based learning (PBL) and having technology integrated through the curriculum more than their non-New Tech peers, and that distinction was statistically significant.



Statistically significant survey results demonstrate that New Tech students are more engaged in:

-  Innovative technology use in their classrooms
-  Investigations of real-world problems
-  Civic behaviors and skills
-  Communicating to external audiences
-  Peer feedback and collaboration
-  Data analysis

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“If we get a project...like, okay in my college class right now we’re presenting something for environmental science, and my partner, I was like, ‘Oooh, we can make a video!’ And she was like, ‘a video? What are you talking about? We’re going to make a little slide to slide presentation.’ And I was like, ‘Oh, wait.’ It’s just that being in New Tech, you learn so much more. And how to create and present things in so many different ways.”

“We came up with our own solution but we also had to do research and in that research we had to figure out specifics.”

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Contrasted with a Texas non-New Tech student: “...we don’t have assignments. It’s just worksheets, tests, and quizzes. The process is um, you learn the lesson and then you take maybe a daily or something to test your knowledge, then you have a quiz and test...”

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Texas data were analyzed for the 2016, 2017, and 2018 cohorts, controlling for ethnicity, disability, income, giftedness, English language learner status, and the overall poverty levels within the school building, and New Tech students scored **significantly higher** on English II exams.



References and notes

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* Math outcomes were not analyzed due to variations in state requirements and data availability.

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To cite the full reports please use the following:

Hinnant-Crawford, B. & Virtue, E. (2019). *New Tech Network Comparative Analysis: Non-Academic Outcomes in Three States*. Cullowhee, NC: Western Carolina University.

Hinnant-Crawford, B. (2020). *New Tech Network Comparative Analysis: Academic Outcomes in Texas Addendum*. Cullowhee, NC: Western Carolina University.